

SPEC. SHEET No. TM-29Z-4-002/EX-01 [TM-ZR293]  
SPEC. SHEET No. TM-29Z-4-302/EX-01 [TM-ZR293(H)]  
DATE August, 1999

TADANO CARGO CRANE

MODEL :  TM-ZR293  
 TM-ZR293 (H) ----- with hook stowing device

CRANE SPECIFICATIONS

CRANE CAPACITY 3,030 kg at 1.5 m (4-part lines)

BOOM 3-sectioned, fully powered synchronized telescoping boom  
of pentagonal box construction  
Retracted length ----- 2.85 m  
Extended length ----- 6.6 m  
Extending speed ----- 3.75 m / 10 s  
Elevation ----- Elevated by a double-acting  
hydraulic cylinder  
Elevating speed ----- 1° to 76° / 6.0 s  
Boom point ----- 2 sheaves

WINCH Hydraulic motor driven Spur gear speed reduction, provided  
with mechanical brake  
Single line pull ----- 7.45 kN{760 kgf}  
Single line speed ----- 66 m/min (at 4th layer)  
Wire rope  
diameter × length -----  
8 mm × 45 m  
breaking strength --- 43.1 kN{4.39 tf}  
construction ----- 7 × 7 + 6 × WS(26)  
Hook block ----- 2 sheaves

HOOK STOWING DEVICE Mechanically stowed beneath boom top portion  
[TM-ZR293(H) only]

SWING Hydraulic motor driven Worm gear speed reduction Continuous  
360° full circle swing on ball bearing slew ring  
Automatic swing lock  
Swing speed ----- 2.5 min<sup>-1</sup>{rpm}

OUTRIGGERS Manually extended sliders and hydraulically extended jacks  
Integral with crane frame Power up and down  
Extended width ----- Min. 1,720 mm  
Mid. 2,400 mm, 2,900 mm  
Max. 3,400 mm

HYDRAULICS Hydraulic pump ----- Single gear pump  
Hydraulic motors ----- Axial piston type for winch  
Axial piston type for swing  
Control valves ----- Multiple control valves with integral  
safety valve

SAFETY DEVICES Load meter  
Load indicator  
Over-winding alarm  
Hoisting limiter [TM-ZR293(H) only]  
P.T.O indicator lamp  
Hook safety latch  
Hydraulic safety valves, check valves and holding valves  
Level gauge

CRANE MASS Approx. 920 kg (includes standardized mounting parts)

NOTE : Operating speeds of the crane are guaranteed under the  
condition that the pump delivery is 53 L /min.

## RATED LIFTING CAPACITIES IN KILOGRAMS

B \ A	2.85 m 4.72 m	B \ A	6.6 m
1.5 m and below	3,030	2.2 m and below	1,880
2.0 m	2,280	2.5 m	1,630
2.5 m	1,830	3.0 m	1,330
3.0 m	1,480	3.5 m	1,130
3.5 m	1,250	4.0 m	980
4.0 m	1,080	4.5 m	880
4.52m	980	5.0 m	780
		5.5 m	700
		6.0 m	630
		6.4 m	580

A : Boom length

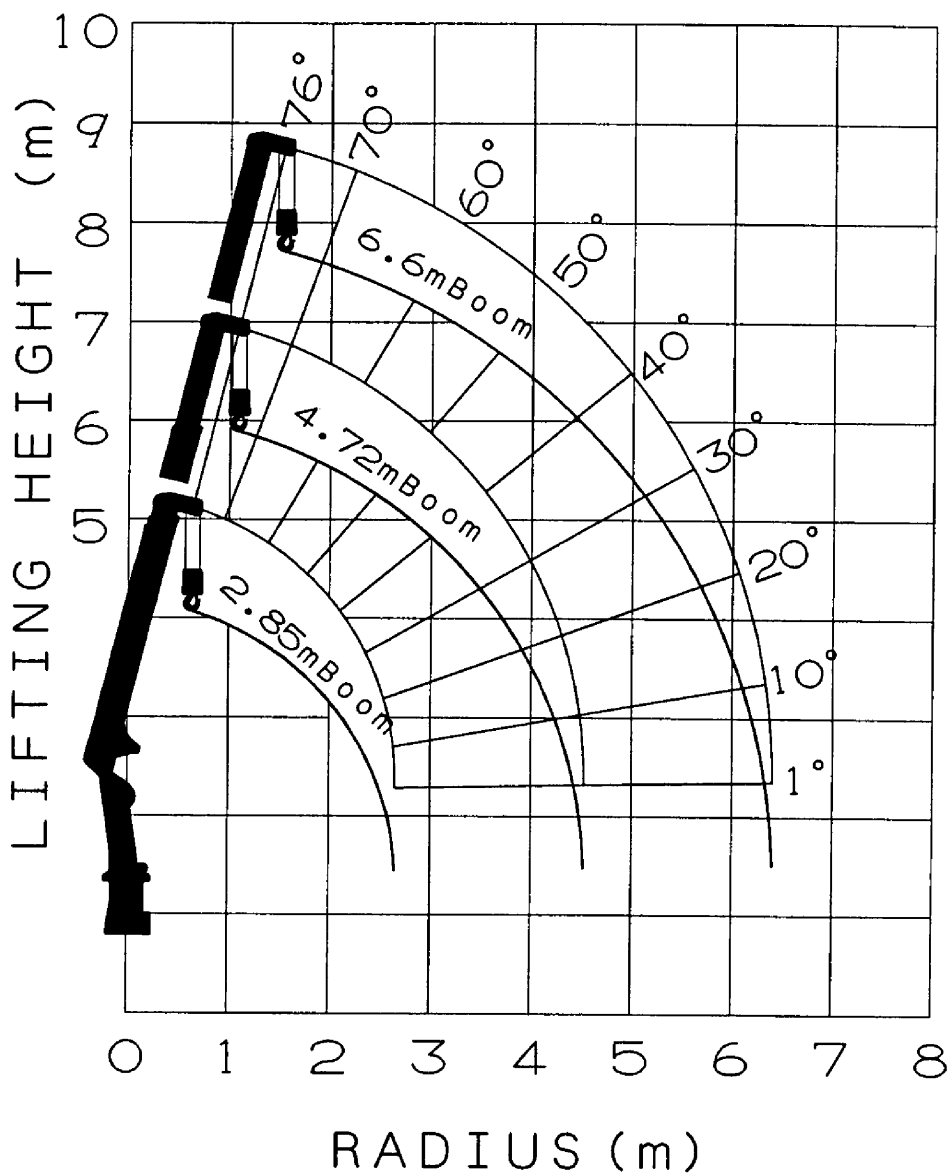
B : Load radius

## NOTES :

1. The mass of the hook (30 kg), slings and all similarly used load handling devices must be added to the mass of the load.
2. The above numerical values of rated lifting capacities are based on crane strength only.

The rated lifting capacities based on stability may lower than those in the above table depending on the loading conditions and the types of the chassis.

### WORKING RANGE

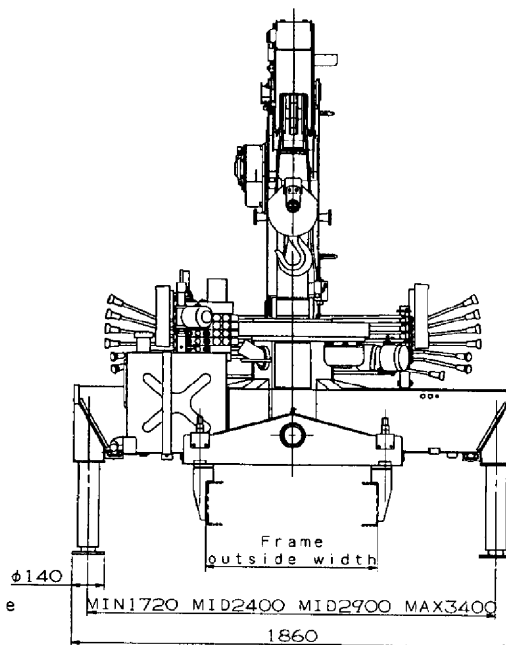
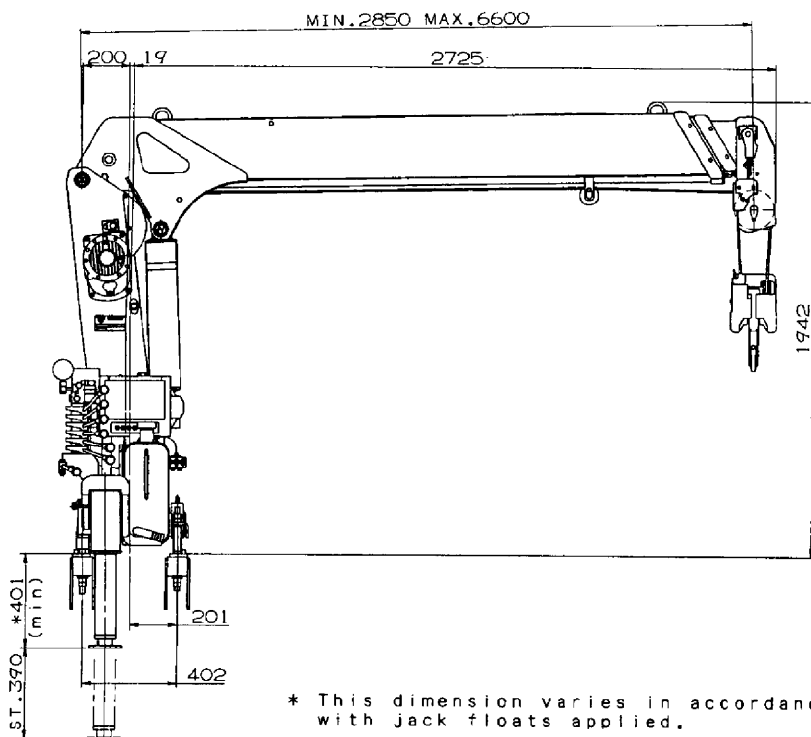


NOTE:

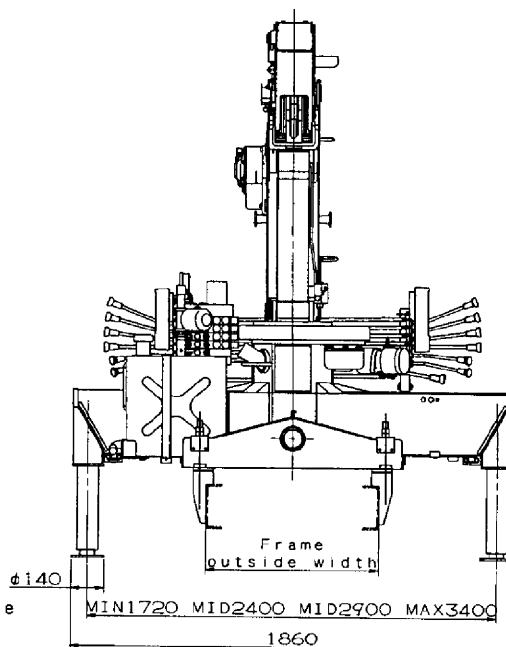
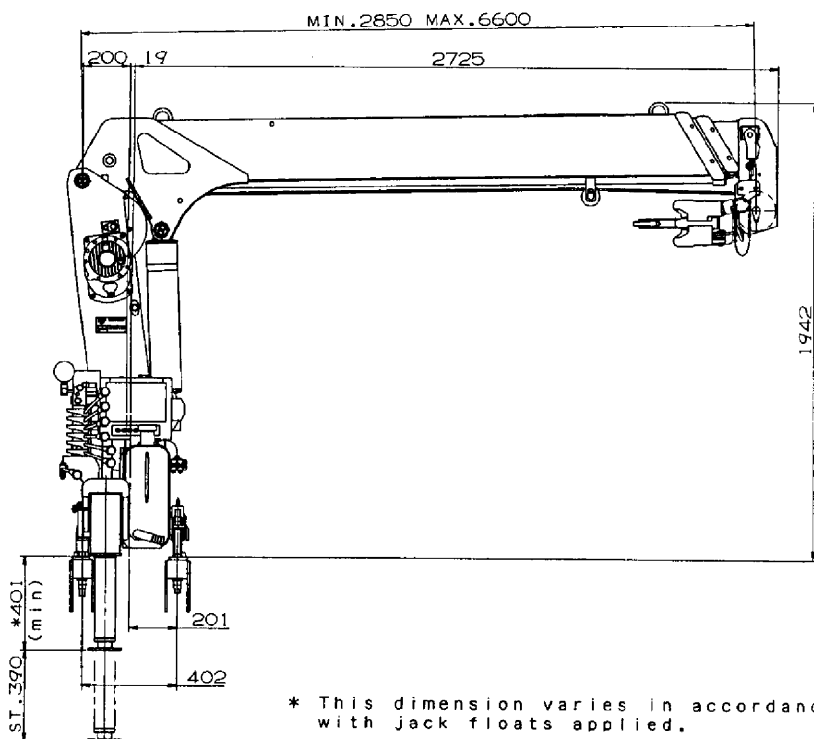
The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.

### DIMENSIONS

#### ZR293



#### ZR293 (H)



## GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass) -----  
4,000 to 8,000 kg

P.T.O. torque ----- 108 N·m{11 kgf·m} min.

P.T.O. revolution ----- Approx. 300 to 2,500 min<sup>-1</sup>{rpm}

Width for crane mounting --- Approx. 620 mm min.

Frame ----- Weight distribution and frame strength  
should be calculated for each truck

Frame width range (inside to outside) -----  
Approx. 650 to 820 mm

Frame height (ground to frame top) -----  
Approx. 905 mm max.  
(Height of crane mounting base can be  
changed by combination of jack floats  
and crane bases)